The FCS One-Team Approach — The Linchpin for Program Management Success

COL Daniel J. Bourgoine, Matthew C. Danter, John Morrocco and Brian A. Smith

The Future Combat Systems (FCS) program is the greatest technology and integration challenge the Army has ever undertaken. Thus, it requires continuous input from multiple partners — government, Lead Systems Integrator (LSI) and subcontractors — covering broad areas of concurrent development. The Army has adopted the FCS One-Team approach to ensure all partners act in concert together. With this approach, each team member's unique talents, capabilities and perspectives create, synergistically, the best the U.S. Army has to offer the Soldier. This article briefly describes how the FCS One-Team accomplishes its mission through its organization into integrated product teams (IPTs) at two levels. Additionally, contributions by key FCS One-Team partners such as the LSI, U.S. Army Training and Doctrine Command (TRADOC) and Defense Contract Management Agency (DCMA) are further highlighted.

The Stryker brings enhanced mobility, maneuverability and firepower to the modern battlefield making our Soldiers more lethal and survivable than ever before.

Mission Accomplishment

The Program Manager (PM) FCS maintains LSI progress oversight through joint government/LSI leadership of the product- and process-oriented IPTs. As described below, a Level I IPT for overall program management and 14 Level II IPTs (seven for system-of-systems (SoS) integration and seven for systems' integration) are established and staffed with government/LSI membership — each IPT has an LSI team leader and a government co-chair — to foster a collaborative working relationship and to ensure successful execution of program plans, cost, schedule, performance and supportability objectives. The following are the initial IPTs the system development and demonstration (SDD) phase will commence with:

- PM IPT (Level I).
- Advanced Collaborative Environment IPT (Level II).
- Complementary Programs IPT (Level II).

- Force Development IPT (Level II).
- Integrated Simulation and Test IPT (Level II).
- Logistics Requirements and Readiness Systems IPT (Level II).
- SoS Engineering and Integration IPT (Level II).
- Training Systems IPT (Level II).
- Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance Systems Integration IPT (Level II).
- Spiral Development and Technical Planning IPT (Level II).
- Lethality Systems Integration IPT (Level II).
- Manned Ground Vehicle Systems Integration IPT (Level II).
- Soldier Systems Integration IPT (Level II).
- Unmanned Aerial Vehicle Systems Integration IPT (Level II).
- Unmanned Ground Vehicle Systems Integration IPT (Level II).

Each IPT has identified its roles, responsibilities and authorities in a team execution plan. The IPT tasks include configuration, data and requirements management; design reviews; trade studies; technical performance measurement; risk management; and cost as an independent variable implementation. The IPTs are also responsible for preparing milestone documents. Levels below Level II include sub-IPTs and ad hoc working groups set up as needed to accomplish specific tasks.

LSI

In structuring its systematic approach to transformation, the U.S. Army has chosen a nontraditional way of doing business because the task's sheer magnitude requires an entirely new approach. As conceived by Army leadership, this new approach involves nothing less than a revolutionary change in the relationship between the Army and its private sector industrial partners. The new relationship is based on the LSI concept that operates much like the general contractor of a house — seeking out the best experts in each area.

The FCS LSI team from the Boeing Co. and Science Applications International Corp. (SAIC) are responsible for total systems integration. The LSI team manages major system and subsystem identification, selection and procurement. The LSI assembled a global team from General Dynamics and United Defense Limited Partnership to lead the manned ground vehicle design team — a logical choice because the two companies have built most of the Army's heavy combat vehicles for the past 40 years.

From July to August 2003, the LSI, with government cooperation, selected another 21 industry partners ranging from companies with long histories of cooperation with the Army to small, entrepreneurial firms shaped by Information Age demands. They, in turn, will bring more than 100 subtier suppliers to FCS.

The selection process conducted by the LSI included the Army and other government agencies. Specific measures were taken to ensure the evaluation process was equitable and would produce a standard-setting "FCS One-Team."

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To jump-start the ambitious schedule mandated by FCS requirements, the Boeing-SAIC LSI team kicked off the first in a series of One-Team meetings with other key industry partners in mid-August. Top executives from the partner companies that were selected to provide major systems for the program met with senior Army acquisition officials and the LSI team to begin setting the foundation for moving forward on this top priority transformation program.

The new partners merged with the LSI in a One-Team Council that meets regularly to integrate major FCS SoS elements. The council's goal was to standardize processes and share best practices, as well as set goals and schedules for moving ahead with the program's SDD phase.

TRADOC SDD Support

As the Army's "architect of the future," TRADOC will continue to provide the warfighter perspective to the integration of doctrine, organizations, training, materiel, leadership, personnel and facilities to enable the Army to achieve Future Force capabilities by decade's end. TRADOC will closely collaborate with PM FCS and LSI to ensure

simultaneous and parallel Future Force, Unit of Action (UA) and FCS developments are properly synchronized and integrated to meet user requirements.

The FCS program will require a continuous and consistent refinement of SDD requirements, particularly in the first 18 months. During SDD, TRADOC's efforts have shifted from operational requirements document (ORD) production to integrating the UA Operational and Organizational Plan and the FCS ORD into the design and development efforts by the LSI and PM FCS. This effort demands a sustained level of TRADOC involvement by its subject matter experts (SMEs) and commandants. TRADOC is committed to providing user support to a program that is characterized by innovation, forwarding thinking, collaboration, cooperation and team play.

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To accomplish this on the aggressive SDD phase timeline, TRADOC is committed to support the program with unprecedented effort distributed across the command, but integrated using a UA- and FCS-responsible agent: the UA Maneuver Battle Lab (UAMBL), a TRADOC Systems Manager (TSM) FCS and the Futures Center.

On Oct. 1, 2003, TRADOC established the Army Futures Center. TRADOC's Commanding General (CG) will leverage Futures Center assets to ensure holistic and integrated FCS Program support and see that FCS is developed and synchronized with the Future Force's larger development efforts. At HQ TRADOC level, the Future Center supports the TRADOC CG by providing bimonthly written reports, monthly face-to-face staff updates and quarterly reviews with UAMBL and the commandants in a requirements integrated concept team.

The Futures Center is strengthening its collaboration with the Joint Forces Command to ensure joint integration. It is also strengthening TRADOC's links to the Marine Corps Combat Developments Center to ensure that Army and Marine Corps FCS common requirements are synchronized when the FCS program transitions to a Joint Program Office.

TRADOC is harnessing user/SME expertise from throughout TRADOC to support the FCS program. TRADOC has enhanced UAMBL with both personnel and resources in unprecedented ways to provide user focus and FCS program support. Furthermore, TRADOC has in place an FCS support directive that establishes support relationships between UAMBL and other TRADOC centers and schools and TSMs to guarantee effective user support to UAMBL and the FCS program. The command is also assigning TRADOC user personnel to collocate with PM FCS and LSI main facilities involved in FCS developments to ensure rapid user feedback to design issues as they arise during SDD. TRADOC has networked its battle labs to conduct extensive UA experimentation during the SDD phase to provide real-time user feedback to the FCS program as the family-of-systems (FoS) is designed and developed.

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TRADOC is also committed to supporting the One-Team in daily SDD management. TRADOC has designated colonels and other SMEs from throughout the command to serve on each of the 14 IPTs. TRADOC also provides two colonels who participate in the weekly Change Control Board meetings and 2-star level participation from UAMBL and Futures Center on the FCS Program Change Control Board. The Futures Center and UAMBL participate as partners with the PM in monthly, quarterly and other major program reviews and support integrating IPT and overarching IPT issues resolution with the Office of the Secretary of Defense.

Bottom line: TRADOC is committed to providing FCS program user support that is characterized by innovation, forward thinking, collaboration, cooperation and team play. TRADOC will have to make the hard calls, when necessary, to ensure that FCS delivers what Soldiers will need to win wars in the next decade.

Customer Focus Drives DCMA Commitment

DCMA is a key player in the FCS

One-Team concept. DCMA's mission is to provide customer-focused, acquisition life cycle and combat support (CS) to ensure worldwide warfighter readiness. As a DOD CS agency, DCMA aligns its operations with its customer's program requirements, wherever they may be. This results in acquisition support that is flexible, mobile, innovative and customer-centric. This approach to customer support solidifies DCMA's role with the Army, LSI and other government and industry players.

DCMA's support starts in the early phases of major programs and is there until the end. For example, DCMA has provided detailed pricing analysis of the LSI's basis of estimate to determine ways to assure the best value for scarce government resources. DCMA's Industrial Analysis Center has provided information on the industrial base's capabilities to support Future Force requirements. Further, as DOD's executive agent for earned value management (EVM), DCMA provided significant support in FCS Program Management Plan development. As part of the program's EVM system, DCMA actively tracks the other transactional agreement (OTA) schedule at all tiers to identify potential risks to cost, schedule and performance. This effort has forged a true collaborative atmosphere of trust and mutual responsibility with the LSI and PM FCS.

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DCMA's key strength in supporting the program is its organizational flexibility. With its main program focal point located at DCMA Boeing St. Louis (collocated with the LSI Program Office), the DCMA team coordinates support functions provided by the worldwide network of contract management offices that oversee FCS supplier partners. This unique relationship provides the FCS team immediate insight into the suppliers' ability to meet cost, schedule and technical performance thresholds. Additionally, because of its intimate knowledge of the contractors' processes and products, the DCMA team works to predict potential program risks and then engages with other FCS team members to mitigate those risks before they lead to unforeseen problems.

A technically diverse workforce is another important DCMA strength. The Army asked for systems engineering support to perform functional decomposition of ORD requirements to SoS specification. Further, the PM wanted assistance in developing technical performance measures that allocated the SoS key performance parameters to the appropriate FoS. DCMA was able to provide that assistance by tapping into its in-house system engineers.

DCMA performs a wide array of business and technical surveillance activities in support of the program's IPTs. The collective result of these efforts is predictive analysis that provides the FCS One-Team early warning of shifts in program risks that require management actions to mitigate potential cost, schedule and performance issues.

The FCS team DCMA component is dedicated to providing the program — and the warfighters who will ultimately employ the systems — the best acquisition support and contract management services available anywhere.

COL DANIEL J. BOURGOINE is the UA Division Chief of the Requirements Integration Directorate of TRADOC's Futures Center. He has a B.A. degree in history from Wheaton College and an M.S. degree in international relations from Troy State University.

MATTHEW C. DANTER is the Lead Systems Program Integrator for DCMA at the Boeing Co. in St. Louis, MO. He holds a B.S. degree in mechanical engineering from the University of Missouri.

JOHN MORROCCO is Director of Communications for Army Systems at the Boeing Co. He holds a B.A. degree, with honors, in history from Boston College, and an M.A. degree from the London School of Economics and Political Science. He also attended King's College, London.

BRIAN A. SMITH is the Director for Business Management at the PM FCS Office. He holds a B.A. degree in psychology from Wabash College and an M.A. degree in public administration from Webster University.